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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,082	01/12/2001	Andrzej Krueger	P-6594-1	1072

7590 11/01/2002

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EXAMINER
PRICE, ELVIS O

ART UNIT	PAPER NUMBER
1621	7

DATE MAILED: 11/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/759,082	KRUEGER ET AL.	
	Examiner	Art Unit	
	Elvis O. Price	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 May 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-4* is/are rejected.

7)☒ Claim(s) *1* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Claims 2-4 are pending in the application.

2. Applicants amendments, filed 12/17/01, has overcome the 53 USC 112, first paragraph rejection issued in the office action dated 6/15/01.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otten et al. {U.S. Pat. 4,902,834}, in view of Lancaster et al. {U.S. Pat. 5,272,226}.

Applicants claim a method of obtaining components of a packet of additives for engine fuels by oxyalkylenation of a mixture containing 94.9-99.9% by weight of alkylphenols with ethylene oxide or propylene oxide.

Otten et al. teach that alkylphenols can be oxyalkylenated with an alkylene oxide, such as ethylene oxide or propylene oxide, in the presence of a basic catalyst at a temperature ranging from 100^0 C to 145^0 C (see Summary of the Invention and Col. 7, lines 8-10). The hydroxyl numbers are below 150 mg KOH/g and the molecular mass of the oxyalkylenated alcohol obtained is not lower than 100 daltons (see abstract, Col. 7,

lines 40-63 and Examples 1-4). The difference between applicants' claimed invention and the Otten et al. reference is that the reference is silent about the percentage of water and/or alcohols contained in the alkylphenol reactant and the contacting of the oxyalkylenated product with an acid ion-exchange resin. The use of an acid ion-exchange in the hydrogen form to reduce the base concentration of the final product would have been obvious to one of ordinary skill in the art, in the absence of any unexpected results or criticality, since acidic ion-exchange resins in the hydrogen form are known in the art as capable of neutralizing a basic solution and are easily separated from the acidified reaction mixture than acids in the free form.

The water content limitation in the alkylphenol that is not taught by Otten et al. is accounted for by the Lancaster et al. reference. Lancaster et al. teach a method of oxyalkylenating organic compounds containing hydroxyl groups by oxyalkylenating a phenolic resin with ethylene oxide and /or propylene oxide in the presence of a basic catalyst at a temperature below 140^0 C. (Col. 1, lines 17-45 (step C) and Col. 2, lines 40-45). The oxyalkylenation is carried out using a phenolic resin reactant which has a water content of less than 0.5% by mass (Col. 1 lines 32-33 (step A)). Lancaster et al. teach that the hydroxyl number of the reaction mixture of step C is below 170, suitably from 134-160 mg of KOH/g.

It would have been *prima facie* obvious to one of ordinary skill in the art to obtain polyoxylkylenated products as presently claimed because Otten et al., in view of Lancaster et al., teach a method of preparing polyoxyalkylenated products using the

method as presently claimed--the use of an acid ion-exchange in the hydrogen form to neutral a basic mixture is an obvious standard procedure.

One of ordinary skill in the art would have been motivated to modify the invention of otten et al., in view of Lancaster et al., by using alkyl phenols containing not more than 0.1% by mass of water to arrive at the presently claimed invention because the oxyalkylenated product of the Lancaster et al. invention is recognized as especially good emulsifiers and demulsifers (well suited as detergent engine fuel additives). The instantly claimed process would therefore have been obvious to one of ordinary skill in the art.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2 and 4 are indefinite for the following reasons:

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The

Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 2 recites the broad recitation "0,05-5,0", and the claim also recites from "0,1 to 1,0% by weight" which is the narrower statement of the range/limitation.

The term "preferably", in claims 2 and 4, is a relative term which renders the claim indefinite. The term "preferably" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Applicants are reminded, in accordance with Ex parte Fressola (27 USPQ 2d 1608, BPAI 1993), that modern claim practice requires the claims to stand alone to define the invention. References in the claims to other parts of the specification are only permitted in very limited circumstances, which do not pertain to the instant situation. Thus, claim 2 is considered to be indefinite because it refers to Figures.

Claim Objections

Claim 1 is objected to because of the following informalities: The percent weight numbers have "commas" as opposed to "decimals". Appropriate correction is required.

instead of

Drawings

The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81. No new matter may be introduced in the required drawing. A copy of Figure 1 is absence from the application.

Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elvis O. Price whose telephone number is 703 605-1204. The examiner can normally be reached on 8:30 am to 5:00 pm; Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on 703 308-4532. The fax phone

numbers for the organization where this application or proceeding is assigned is 703 308-4556 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1235.

Elvis O. Price, Ph.D.

October 28, 2002

for

Johann R. Richter, Ph.D., Esq.
Supervisory Patent Examiner
Technology Center 1600

JAMES O. WILSON
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